

Negation and Focus in K'iche'

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1 Introduction

It has been claimed that negation in K'iche', a Mayan language of Guatemala, is indicated by the negative particle *ma(n)* before the predicate and the so-called irrealis particle *ta(j)*¹ after the predicate (Larsen, 1988)²:

- (1) a. *x-Ø-ik-tij kab' ri ak'alaab'.*
CMP-A3-E3p-eat candy the children
'The children ate candy.'
- b. **Man** *x-Ø-ik-tij ta kab' ri ak'alaab'.*
NEG CMP-A3-E3p-eat NEG candy the children
'The children didn't eat candy.'

K'iche' is a predicate-initial language and has a pre-predicate position for focused constituents (throughout the paper, the pre-predicate constituents in the focus position are italicized):

- (2) *Context: What did the children eat?*
Kab' x-Ø-ik-tij-o.
candy CMP-A3-E3p-eat-STAT
'They ate CANDY.'

When a sentence containing such a focused expression is negated, the negation particles are placed around the focused expression (Larsen, 1988):

- (3) *Context: What did the children eat? Candy?*
Man *kab' ta x-Ø-ik-tij-o. X-Ø-ik-tij lej.*
NEG candy NEG CMP-A3-E3p-eat-STAT CMP-A3-E3p-eat tortilla
'They didn't eat CANDY. They ate TORTILLAS.'

In (3), *man...ta(j)* does not occur around the predicate, *x-Ø-ik-tij-o* 'CMP-A3-E3p-eat-STAT', as it does in (1b), but rather around the pre-predicate argument *kab'* 'candy'. Given this behavior of the negation particles in focus constructions, the literature has claimed that in a negated focus construction, it is the focused constituent that is "negated" (Larsen, 1988, and see also Mondloch 1978; López Ixcoy 1997; Can Pixabaj 2010) and that this constituent is a non-verbal predicate (Larsen, 1988).

In this paper, I develop an analysis of negation in K'iche' based on data gathered in original fieldwork and challenge the claims outlined above. First, I show that in the negation of

simple declarative sentences, the negation particles do *not* always occur around the predicate of the sentence as a whole. These are the cases where the predicate of the sentence is a complex one or is formed by a verb or an auxiliary taking another verbal complex as a complement. As for negated focus sentences, I show that it is also *not* always the whole pre-predicate constituent that the negation particles are placed around. These are the cases where the negation particles occur around a proper sub-constituent of the pre-predicate constituent. These two cases show that the claims in the literature about the surface distribution of *man...ta(j)* are descriptively inadequate. I follow Henderson (to appear) and argue that phonological restrictions on the particle *ta(j)* account for the distribution of the negation particles. Moreover, I claim that, just as in the case of negated simple declaratives, *man...ta(j)* always yields propositional negation in a negated focus sentence and does not involve “negating” a constituent, as the traditional analyses can be taken to suggest (Mondloch, 1978; Larsen, 1988; López Ixcoy, 1997; Can Pixabaj, 2010, see also England 1983, 1989; Broadwell 2000; Duncan 2003). I argue that the common intuition about the focused constituent being “negated” is due to the pragmatic interaction between focus and negation. In particular, it is due to fact that, as has long been observed, when a focus construction is negated what is asserted is targeted by negation, whereas what is presupposed, the existence of a Question Under Discussion (Roberts, 1996), survives as an implication (Jackendoff, 1972; Kratzer, 1989). I argue that combining the facts about the distribution of *man...ta(j)* and the pragmatics of focus and negation gives us a unified account of negation in K’iche’ where we can predict the variable surface distribution of *man...ta(j)* which invariably yields propositional negation.

The rest of this paper is organized as follows. In section 2, I give some background on K’iche’ morpho-syntax. In section 3, I talk about negation in basic declaratives, illustrate the shortcomings of the traditional analyses and provide a better descriptive generalization. Section 4 is where I explain what I mean by focus in more detail, discuss its interaction with negation and present a generalization about the behavior of negation. I conclude in section 5.

2 Background

K’iche’ has an ergative-absolutive agreement system (Larsen, 1988), and preserves this system throughout changes in aspect and clause type (Pye, 2001). The basic word order is VS in intransitive clauses and VOA in transitive clauses (Larsen, 1988; Pye & Poz, 1988; England, 1991) where S stands for the single argument of an intransitive, A for the more agent-like argument of a transitive, and O for the more patient-like argument of a transitive verb (Dixon, 1994)³. These two word orders characterize the basic, non-emphatic sentences where pronominal arguments are usually dropped. First, here are some examples that illustrate intransitive clauses in K’iche’.

- (4) x-Ø-war ri achi.
 CMP-A3-sleep the man
 ‘The man slept.’

- (5) *x-at-war-ik*.
 CMP-A2-sleep-STAT
 ‘You slept.’

There is no case-marking on noun phrases to identify grammatical relations or semantic roles; they are read off of the verbal complexes via the ergative and absolutive cross-reference markers given in Table 1.

Ergative	Preconsonantal	Prevocalic	Absolutive	
E1	-in-	-inw-/-w-	A1	-in-
E2	-aa-/-a-	-aw-	A2	-at-
E3	-uu-/-u-	-r-	A3	-∅-
E1p	-qa-	-q-	A1p	-uj-/-oj-
E2p	-ii-	-iw-	A2p	-ix-
E3p	-ki-	-k-	A3p	-e’-/-eb’-/-ee-

Table 1. Ergative and absolutive agreement prefixes, adapted from Trechsel (1993).

The absolutive markers are used to cross-reference, i.e. register the number and person features of, the S argument of an intransitive verb and the O argument of a transitive verb. In an intransitive verbal complex, e.g. in *x-∅-war* ‘CMP-A3-sleep’ in (4), the sole argument *ri achi* ‘the man’ is cross-referenced by the phonologically null, third person singular absolutive marker -∅- ‘A3’ preceding the verb root *war* ‘sleep’. There are two more markers in an intransitive verbal complex in the active voice: (i) the aspect marker, here *x-* ‘CMP’, which precedes the absolutive marker, and (ii) the status marker *-(i)k* ‘STAT’ which marks phrase-finality (5), in particular, the end of an intonational phrase (Henderson, to appear) for intransitive verbs in the imperfective and perfective aspects.

The ergative markers, on the other hand, are used to cross-reference the A argument of a transitive verb as exemplified below:

- (6) *x-∅-a-to’ ri achi*.
 CMP-A3-E2-help the man
 ‘You helped the man.’

- (7) *x-at-u-to’ ri achi*.
 CMP-A2-E3-help the man
 ‘The man helped you.’

- (8) *x-at-u-to’-o*.
 CMP-A2-E3-help-STAT
 ‘S/he helped you.’

In a transitive verbal complex, e.g. in *x-at-u-to’-o* ‘CMP-A2-E3-help-STAT’ in (8), the absolutive marker *-at-* ‘A2’, which marks the O argument of the verb, precedes the ergative

marker *-u-* ‘E3’, which marks the A argument. The ergative marker, in turn, precedes the verb root *to* ‘help’. Since there is no overt marking on the noun phrases, the only thing that identifies, say, *ri achi* ‘the man’ as the O argument in (6) but as the A argument in (7) is the absolutive marker *-at-* ‘A2’ and the ergative marker *-u-* ‘E3’, respectively (Trechsel, 1993). Similar to intransitive verbs, transitive verbs may carry phrase-final suffixes when they occur at the end of intonational phrases. The form of the suffix can be *-u*, *-o* or *-j* depending on the derivational status of the stem (Trechsel, 1993). Although the status suffixes seem to have no semantic contribution, they are used to distinguish transitive and intransitive verbs in K’iche’. They also simultaneously register (in)transitivity, aspect and, in the case of transitive verbs, the derivational status of the stem (Pye, 2001).

Having provided a basic description of the morpho-syntax of K’iche’, I now turn to the main topic of the paper, namely how negation is encoded across different constructions.

3 Negation in K’iche’

It has been traditionally claimed that negation in K’iche’ is indicated by the negative particle *man*⁴ before the predicate and the so-called irrealis particle *ta(j)* after the predicate, with the form of *ta(j)* changing depending on where it occurs (Mondloch, 1978; Larsen, 1988; López Ixcoy, 1997; Can Pixabaj, 2010)⁵:

- (9) a. X- \emptyset -war-ik.
 CMP-A3-sleep-STAT
 ‘S/he slept.’
 b. **Man** x- \emptyset -war **taj**.
 NEG CMP-A3-sleep NEG
 ‘S/he didn’t sleep.’
- (10) a. X- \emptyset -inw-il ri achi.
 CMP-A3-E1-see the man
 ‘I saw the man.’
 b. **Man** x- \emptyset -inw-il **ta** ri achi.
 NEG CMP-A3-E1-see NEG the man
 ‘I didn’t see the man.’

Although the traditional claim can account for the data above, as the particles occur around the predicates both in (9b) and (10b), it is not hard to find counter-examples to it. With a compound verb like *b’an jab* ‘rain’, for instance, or a with a finite complement-taking verb like *aj* ‘want’, the particles *man* and *ta(j)* do *not* enclose the predicate as a whole. As (11) and (12) illustrate, the negation particles occur around *x- \emptyset -u-b’an* ‘CMP-A3-E3-make’ and *k- \emptyset -inw-aj* ‘INCM-P-A3-E1-want’, respectively, which are proper sub-constituents of the predicates of the sentences in each case:

- (11) a. **Man** x- \emptyset -u-b'an **ta** jab'.
 NEG CMP-A3-E3-make NEG rain
 'It didn't rain.'
- b.***Man** x- \emptyset -u-b'an jab' **taj**.
 NEG CMP-A3-E3-make rain NEG
 (intended reading) 'It didn't rain.'
- (12) a. **Man** k- \emptyset -inw-aj **ta** k-in-wa'-ik.
 NEG INCOMP-A3-E1-want NEG INCOMP-A1-eat-STAT
 'I don't want to eat.'
- b.***Man** k- \emptyset -inw-aj k-in-wa' **taj**
 NEG INCOMP-A3-E1-want INCOMP-A1-eat NEG
 (intended reading) 'I don't want to eat.'

These examples clearly show that the distribution of the negation particles, even in basic declarative clauses, cannot be captured by a solely syntax-semantics based generalization as has been traditionally claimed, e.g. by saying that the particles occur around the verb or the predicate of a negated sentence. Perhaps a way to get around this problem is to claim, as Pye (2001) does, that the particle *ta(j)* in K'iche' follows the finite verb form. Yet, there are cases where this is not so, as (13) shows:

- (13) a. **Man** tajin **ta** k-in-wa'-ik.
 NEG PROG NEG INCOMP-A1-eat-STAT
 'I am not eating.'
- b.***Man** tajin k-in-wa' **taj**
 NEG PROG INCOMP-A1-eat NEG
 '(intended reading) I am not eating.'

In (13), *ta(j)* occurs after the progressive particle *tajin* rather than the finite verbal complex *k-in-wa'-ik* 'INCOMP-A1-eat-STAT'. If we analyze *tajin* as a progressive particle, then Pye's claim will not work since *ta(j)* cannot follow the finite verb form, as (13b) shows. Alternatively, if we follow Larsen (1988) and analyze *tajin* as the head of the clause, where the finite verbal complex is analyzed as its argument co-referenced by the absolutive marker \emptyset - 'A3', then the traditional claim will not work. This latter scenario is similar to the case of the compound verbs above because the negation particles are not around the predicate of the sentence, \emptyset -*tajin k-in-wa'-ik* 'A3-PROG INCOMP-A1-eat-STAT', but only around \emptyset -*tajin* 'A3-PROG'. In sum, the claims in the literature fail to capture the distribution of *man...ta(j)* in simple declarative clauses.

Following Henderson (to appear), I claim that the distribution of *ta(j)* is in fact phonologically conditioned. Henderson observed that the particle *ta(j)* behaves like a clitic and, in particular, that it needs a prosodic host to attach to. According to Henderson, this host is

the first prosodic word in the domain of negation, which for the cases above is the predicate of the sentence (p.6). According to Henderson, prosodic words in K'iche' are larger than a single light syllable and light syllables are monomoraic. That is to say, a prosodic word has to contain at least one heavy syllable which is bimoraic. Moreover, coda consonants bear a mora in K'iche'. Stress falls on the final syllable of a prosodic word, unless that syllable is light non-root material, in which case it falls on the final root syllable (p.26).

Given these assumptions, Henderson's generalization captures the distribution of *ta(j)* in the cases we have seen so far. In (14), for example, the first prosodic word in the domain of negation, which Henderson takes to be the predicate, is the predicate itself and *ta(j)* attaches to the right of this word. In (15), on the other hand, *ta(j)* attaches to *tajin* 'A3-PROG' as the latter is the first prosodic word in the domain of negation. Yet, in this latter case *tajin* 'PROG' is only a proper sub-constituent of the predicate of the sentence:

(14) **Man** x-∅-inw-il **ta** ri achi.
 NEG CMP-A3-E1-see NEG the man
 'I didn't see the man.'

(15) **Man** tajin **ta** k-in-wa'-ik.
 NEG PROG NEG INCOMP-A1-eat-STAT
 'I am not eating.'

Given the above arguments about the distribution of the negation particles, I will adopt the following generalization.

(16) DISTRIBUTION OF *man...taj* (1st version)

In a negated simple declarative sentence, *ta(j)* attaches to the right of the first prosodic word of the predicate, which the optional particle *man* can precede.

Later, when we discuss the distribution of *man...ta(j)* in negated focus sentences, we will see how the particle *ta(j)* shows a low degree of selection with respect to its host, and its requirement for a phonologically appropriate host, namely a prosodic word, will become much clearer, an observation which supports its status as a clitic Henderson (to appear). In the next section, we will see how this insight can be generalized to the cases of negated focus sentences after we elaborate more on focus in K'iche'.

4 Focus in K'iche'

Although the basic word in K'iche' is VS/VOA, in texts it is relatively uncommon to find the A, O or the S arguments in post-predicate positions unless they are realized as non-pronominal arguments. Larsen (1987, p.40) claims that independent pronouns, although their occurrence in these positions is rare, are indeed used in some cases to indicate "contrastive emphasis" or change of subject. These pronouns, given in Table 2 below, are identical to absolutive markers except for the third person.

1sg	In
2sg	At
3sg	Are'
1pl	Oj
2pl	Ix
3pl	E a're'/A're'/Ke

Table 2. Independent pronouns, adapted from Larsen (1987).

A general claim about Mayan languages, dating back to Norman (1977), has been that they are generally predicate-initial but that there are two special positions preceding the predicate that constituents can occupy for pragmatic purposes. It is the discourse relations that these constituents denote, called *topic* and *focus*, that govern the changes in the basic word order in K'iche'. Immediately preceding the predicate is a position which is called the *focus* position. Focus sentences have been traditionally analyzed as involving a movement operation or a syntactic binding relation whereby the focused constituent is realized in the pre-predicate position and linked to a gap in the post-focal portion of the sentence (Larsen, 1988; Aissen, 1992; Trechsel, 1993).

(17) *Aree ri achi x-Ø-q'ab'ar-ik.*

FOC the man CMP-A3-get.drunk-STAT

'It was the man who got drunk.'

(Larsen, 1988, p.503)

The constituents occupying this position are generally understood to be "prominent" in some sense (Larsen, 1988), as reflected in the cleft translation into English. Aissen (1992, p.43), among many others (Larsen, 1988; Trechsel, 1993; Pixabaj & England, 2011) claims that focus sentences are indeed interpreted like clefts in English. I, however, choose not to use cleft translations for the data that I am presenting as I suspect not all foci are interpreted as clefts. I leave it for future research to investigate this issue.

Before presenting the data on focus in K'iche', which is crucial in understanding the behavior of negation, I would like to make clear what I take focus to be in this paper. As has been noted in the literature, at least at an intuitive level, focus involves a way to mark highlighted or emphasized information in the discourse. But a more useful characterization of focus is to consider it as indicating what question is under discussion (Jackendoff, 1972; Roberts, 1996), which, according to Kadmon (2001), is the most basic and crucial intuition about focus.

A widely-held view about focus is that it is taken to evoke alternatives in discourse (Rooth, 1992). Consider the following example where capitals indicate prosodic prominence on *Michael*:

(18) MICHAEL ate tortillas.

In (18), *Michael* has *Robert, Jane, Peter*, etc. as his alternatives with which one constructs an alternative set, "*x* ate tortillas", for the original sentence where *x* ranges over possible al-

alternatives drawn from a contextually restricted set. This set of alternatives that focus evokes helps determine an additional semantic value for an utterance which Rooth (1992) calls *the focus semantic value*. In other words, the focus semantic value of a focused expression α , denoted by $\llbracket \alpha \rrbracket^f$, is obtained by making a substitution in the position corresponding to the focused constituent in the sentence. For instance, the focus semantic value of (18) is (19) and the ordinary semantic value of the former is drawn from the latter:

$$(19) \llbracket [\text{MICHAEL ate tortillas}] \rrbracket^f = \{\text{ate}(x, \text{tortillas}) \mid x \in E\}$$

Another important characteristic of focus is that in a constituent question-answer pair, the phrase corresponding to the *wh*-word is focused. So, for instance, (18) can constitute an answer for *Who ate tortillas?* but not, say, *What did Michael eat?*. If we indeed take *Who ate tortillas?* as the question under discussion (QUD) (Roberts, 1996) in this case, then in (18) *Michael* will correspond to *who* whereas the rest of the sentence, *ate tortillas*, will be congruent to the QUD in the sense that abstracting on the *wh*-word in the question yields the property *ate tortillas*. Crucially, the set we obtain by such an abstraction is the same set as the focus semantic value (18), hence the congruence (Roberts, 1996). Roberts (1996) claims that prosodic focus in English presupposes the QUD, a presupposition which, together with contextual clues, enables the hearer to reconstruct, or *retrieve*, the question. A QUD is basically a semantic question, i.e. a set of propositions, that corresponds to the current discourse topic (p.93). It may be an actual question that is asked or may be implicit in the discourse (Roberts, 1998).

However, Roberts (1996) also points out that the prosodic realization of focus is not universally assumed by those working on the semantics of focus. There are cases where foci are not realized as such or are realized together with other means, i.e. focus may involve more than pitch accents and that many languages use cleft-like structures, marked word order or special morphemes to indicate focus in addition to intonational marking (Büring, 2011). Therefore, the common core of focus is arguably the observation that it evokes alternatives and, moreover, that it is intuitively linked to the question-answer congruence irrespective of the actual means of realizing focus (Roberts, 1996; Rooth, 1996).

Traditionally, Mayanists have subsumed pre-predicate focus constructions, content questions and relative clauses under the heading of focus because they characterized these constructions by the obligatory presence of a sentential constituent immediately preceding the predicate, the obligatory gap in the post-focal portion of the sentence, and a dependency between them (Larsen, 1988; Trechsel, 1993). Given what I have discussed about focus above, what I will take focus to be in K'iche' in this paper will be characterized as follows: (i) the focused constituent is an expression that is an answer to the QUD, (ii) the focused constituent precedes the predicate. There are a couple of points that I would like to make about this characterization. First, I am not assuming a cleft-like translation for focus, as I had mentioned earlier. Second, as far as my data suggest, focus *can* be realized in post predicate positions in K'iche' despite the tendency to realize it in the pre-predicate position.

This is also true for nominal foci if the focus particle *aree* does not accompany the focused expression⁶. In this paper, however, I am only interested in pre-predicate foci because in negated focus sentences, the focused expression is realized only in this position. Third, I say that the focus is realized in the pre-predicate position but I do not mean that focus always immediately precedes the predicate: whatever is actually focused can be a proper sub-constituent of the pre-predicate constituent as we will see below. Lastly, I would like mention what is called *agent focus*, a much discussed phenomenon in Mayan languages (see e.g. Mondloch, 1981; Larsen, 1988; Trechsel, 1993; Aissen, to appear, for K'iche' and Dayley, 1981; Aissen, 1999; Stiebels, 2006 for other Mayan languages). Agent focus can be used with transitive verbs when the ergative argument is focused as in the example below:

- (20) Al Maria x- \emptyset -tij-ow ri kab'.
 female Maria CMP-A3-eat-AG the candy
 'MARIA ate the candy.'

The verbal complex in (20), *x- \emptyset -tij-ow* 'CMP-A3-eat-AG', is in the agent focus form which is characterized by (i) the absence of an ergative marker on the verb, and (ii) the presence of the agent focus marker⁷ *-ow* 'AG' attached to the verb. Although, it is indeterminate as to whether it is the agent or the patient that the absolutive marker agrees with, the interpretation is always that the pre-predicate argument, the agent of the action, is focused. As Larsen (1988) points out, this form of the verb can never be used in simple declarative transitives or intransitives. However, Larsen also reports that using agent focus is optional even in the cases where its use is felicitous. This optionality is also reflected in the data I am presenting as my informants were not making use of this form as often. In any case, to the best of my knowledge, whether agent focus is used or not to convey the focus meaning does not affect the distribution of *man...ta(j)*.

Before concluding this section, I am going to present a set of focus sentences whose negated counterparts will help us re-evaluate the traditional claims and to reach a better generalization about the behavior of negation in K'iche'. The set of expressions that can occur in the pre-predicate focus position is diverse⁸ and includes pronouns (21a), noun phrases (21b), the focus particle *aree* preceding a pronoun (21c) or a noun phrase (21d), nouns (22), adverbs (23), prepositional phrases (24), (25) and quantificational phrases (26):

- (21) *Context: Who slept?*
 a. Oj x-oj-war-ik.
 we CMP-A1p-sleep-STAT
 'WE slept.'
 b. A Raul x- \emptyset -war-ik.
 male Raul CMP-A3-sleep-STAT
 'RAUL slept.'

- c. *Aree oj x-øj-war-ik.*
 FOC we CMP-A1p-sleep-STAT
 ‘WE slept.’
- d. *Aree a Raul x-ø-war-ik.*
 FOC male Raul CMP-A3-sleep-STAT
 ‘RAUL slept.’

(22) *Context: What did the children eat?*

Kab’ x-ø-ik-tij-o.
 candy CMP-A3-E3-eat-STAT
 ‘They ate CANDY.’

(23) *Context: How did Raul run?*

Nojim x-ø-u-tzaq aniiim.
 slowly CMP-A3-E3-fall quickly
 ‘He ran SLOWLY.’

(24) *Context: Where is the dog?*

P-u-wi’ ri tem k’o wi.
 PREP-E3-on the chair exist PART
 ‘It is ON THE CHAIR.’

(25) *Context: Who did you go to the market with?*

R-uk’ ri in-tat x-im-b’ee wi.
 E3-with the E1-father CMP-A1-go PART
 ‘I went with MY FATHER.’

(26) *Context: Who came to the party?*

K’ii winaq x-ee-pet-ik.
 many people CMP-A3p-come-STAT.
 ‘MANY PEOPLE came.’

We will revisit these data while discussing the possible interpretations of the traditional claims about negation and focus in K’iche’ in the next section.

4.1 Negation and focus in K’iche’

Because of the way negation particles pattern with respect to the focused expression in a focus construction, the literature has claimed that focused constituents are “negated”. As many different constituents can be focused, we encounter claims like the following:

1. “Not only verbs, but nouns, pronouns, adjectives, adverbs and prepositions can be negatized.” (Mondloch, 1978, p.38)

2. “Niegan el resultado de una acción o alguno de los constituyentes en la oración. La partícula *ma(n)* antecede a la palabra que niega y se complementa con la partícula *ta(j)*.” (López Ixcoy, 1997, p.225)

The negation particles “negate the result of an action or some of the constituents of a sentence. The particle *ma(n)* precedes the word which it negates and is complemented by the particle *ta(j)*.”

3. “Los sintagmas nominales que desempeñan funciones de objeto, sujeto y adjuntos pueden ser negados.” (López Ixcoy, 1997, p.284)

“The noun phrases which function as the object, subject and adjunct can be negated.”

4. “Los constituyentes que pueden negarse son el sujeto intransitivo, el objeto transitivo, el sujeto transitivo, el sujeto estativo, el objeto indirecto, el instrumento, el beneficiario, el tema, adjuntos de lugar, and predicados verbales y no verbales.” (López Ixcoy, 1997, p.394)

“The constituents that can be negated are the subject of an intransitive, the object of a transitive, the subject of a transitive, the subject of a stative, indirect objects, instrumentals, beneficiaries, themes, place adjuncts, and verbal and non-verbal predicates.”

5. “La negación [e interrogación] de constituyentes requiere de las mismas partículas se utilizan para negar una oración. Los constituyentes que se niegan son los que encuentran entre cada par de partículas. Por lo tanto estos constituyentes se encuentran enfocados.” (Can Pixabaj, 2010, p.8)

“The negation [and interrogation] of the constituents requires the same particles used to negate a sentence. The constituents that are negated are those which are found between each pair of particles. Therefore, these constituents are focused.”

As far as I can see, there are two ways that these claims can be interpreted. The first is that they are nothing more than a description of the surface distribution of *man...ta(j)* in negated focus sentences. If this is the intended sense, then the claim that focus constituents are “negated” should not be taken literally as it is not about constituents being “negated” *per se* but about the variable surface distribution of the negation particles. Indeed, *man...ta(j)* can occur around the whole pre-predicate constituent as in (27), or the particle *ta(j)* can attach to the right of this constituent as in (28)-(30) when *man* is omitted:

(27) Context: How did Raul run? Slowly?

Man nojim taj x-∅-u-tzaq anim. *Aninaq* x-∅-u-tzaq anim.
 NEG slowly NEG CMP-A3-E3-fall quickly quickly CMP-A3-E3-fall quickly
 ‘He didn’t run SLOWLY. He ran QUICKLY.’

(28) *Context: Who slept? You?*

Oj taj x- \emptyset -war-ik. *Aree a Miguel.*
We NEG CMP-A1p-sleep-STAT FOC male Miguel
'WE didn't sleep. MIGUEL slept.'

(29) *Context: Who slept? Raul?*

A Raul taj x- \emptyset -war-ik. *Aree a Roberto*
male Raul NEG CMP-A3-sleep-STAT FOC male Roberto
'RAUL didn't sleep. ROBERTO slept.'

(30) *What did the children eat? Candy?*

Kab' ta x- \emptyset -ik-tij-o. *X- \emptyset -ik-tij lej.*
candy NEG CMP-A3-E3-eat-STAT CMP-A3-E3-eat tortillas
'They didn't eat CANDY. They ate TORTILLAS.'

Just as we saw in negated simple declaratives, however, the traditional claim fails to adequately describe the distribution of *man...ta(j)* in negated focus sentences. The examples in (31)-(36) below illustrate the fact that the particle *ta(j)* does *not* always occur at the end of the pre-predicate constituent. In each of these sentences, *ta(j)* attaches to a proper sub-constituent of the pre-predicate constituent⁹, a pattern not predicted by the traditional claim:

(31) *Context: Who slept? You?*

Aree ta oj x- \emptyset -war-ik. *Aree a Miguel.*
FOC NEG we CMP-A1p-sleep-STAT FOC male Miguel
'WE didn't sleep. MIGUEL slept.'

(32) *Context: Who slept? Raul?*

Aree ta a Raul x- \emptyset -war-ik. *Aree a Roberto.*
FOC NEG male Raul CMP-A3-sleep-STAT FOC male Roberto
'RAUL didn't sleep. ROBERTO slept.'

(33) *Context: Where is the dog? On the chair?*

P-u-wi' ta ri tem k'o wi. *Ch-u-xe' ri tem* k'o wi.
PREP-E3-top NEG the chair exist PART PREP-E3-base the chair exist PART
'It is not ON the chair. It is UNDER the chair.'

(34) *Context: What did you see in the forest? A white rabbit?*

Jun saq ta imul x- \emptyset -inw-il-o. *Aree jun q'eq imul.*
a white NEG rabbit CMP-A3-E1-see-STAT FOC a black rabbit
'I didn't see a WHITE rabbit. I saw a BLACK rabbit.'

(35) *Context: Who did you go to the market with? With your father?*

R-uk' ta ri in-tat x-im-b'ee wi. R-uk' ri in-nan x-im-b'ee wi.
E3-with NEG the E1-father CMP-A1-go PART E3-with the E1-mother CMP-A1-go PART
'I didn't go with MY FATHER. I went with MY MOTHER.'

(36) *Context: Who came to the party? Many people?*

K'ii ta winaq x-ee-pet-ik. Keb' oxib' winaq x-ee-pet-ik.
many NEG people CMP-A3p-come-STAT two three people CMP-A3p-come-STAT.
'Not MANY people came. SOME people came.'

The fact that the negation particles do not always occur around the focused constituent as a whole undermines Larsen's (1988) claim that these constituents are non-verbal predicates. As we have seen in section 3, it is not true that predicates in K'iche' are always surrounded by the negation particles in negated sentences. But, even if this was a sufficient condition for an expression to be a predicate, which seems to be Larsen's assumption for claiming that focused expressions are non-verbal predicates, the examples above would constitute counter-examples to his claim.

The second interpretation of the claims I cited in the beginning of this section can be that the relative position of *man...ta(j)* in a sentence indicates what sub-sentential constituent is "negated" in a more literal sense. Informally, the reasoning can be that because *man...ta(j)* occurs around (some part of) the predicate in a basic declarative sentence and it negates the predicate, when it occurs around some other constituent of a sentence, it should be that constituent that is "negated". In the case of negating a predicate, perhaps the authors refer to what is sometimes called VP-negation, which semantically would take the denotation of the VP, a one-place predicate denoting a set of individuals, and turn it into its complement set, or more precisely, into the characteristic function of that set (Dowty et al., 1981). Yet, when the claim is made for focused constituents, none of the works I cite here has an explanation or an analysis as to what it would amount to. Nevertheless, I do not think that taking the claims in this literal sense is unfounded. For one thing, similar claims are made for closely related languages of the Mayan family. England (1983, p.244), for example, writes that in Mam "[n]egation is accomplished through the use of negative particles which are first in the sentence and followed immediately by the phrase or clause being negated. This automatically focuses negated nominals". Thus, according to England, negation involves a change in basic word order in Mam, just as focusing and question formation, in that "[t]he constituent that is negated, focused, or fronted is moved in front of the verb" (England, 1989). I take this argument to be very similar to what Can Pixabaj (2010) claims for K'iche' when she says "[t]he constituents that are negated are those which are found between each pair of particles. Therefore, these constituents are focused". It seems as though the common argument is that these languages have an operation of constituent-negation which involves fronting constituents. If this is the claim, then what happens in the examples above is not the negation of focus sentences, but the extraction of constituents so that they can be "negated". Broadwell (2000) makes a somewhat similar claim for Kaqchikel.

He argues that there are in fact two different structural positions in Kaqchikel, one for what he calls contrastive focus (ConFoc) and one for negated focus (NegFoc), and he claims that focused NPs reside in the former whereas “negated” NPs reside in the latter. Duncan (2003), in his analysis of Tz’utujil, adopts the same proposal where negated NPs necessarily occupy the pre-predicate NegFoc position. I take these arguments as evidence that for other languages of the Mayan family, a distinction has also been made between focusing, as a way to highlighting information, and negation of constituents, both of which seem to use the same means, namely fronting.

Given the distribution of the negation particles we observed so far, a theory of negation in K’iche’ which adopts the constituent-negation claim literally has to maintain that in the examples above pronouns, noun phrases, functional particles, prepositions, nouns, adverbs, adjectives and quantifiers are “negated”. If the structural assumption is that these constituents are extracted from their canonical positions by a fronting operation, then I believe it is correct to assume that they will retain their syntactic and semantic categories in the negated focus position. But, this would require positing many different syntactic and semantic translations for *man...ta(j)*, i.e. as many as the number of expressions that can be extracted and “negated”. Moreover, we have seen that the negation particles are able to occur around proper sub-constituents of these pre-predicate arguments, too, which will increase the number of different negation particles. The burden of proof is on those researchers who would like to develop a theory of negation with several different negation particles and clarify how they capture constituent-negation in each case and what would that amount to semantically. What I will do in the remainder of this section is to combine the observation we made about the distribution of the particle *ta(j)* with a long-standing claim about how negation and focus interact pragmatically to argue that *man...ta(j)* always yields propositional negation. This will also give us a principled way of explaining the intuition that in a negated focus sentence, the focused constituent is “negated”.

First of all, the variable distribution of *ta(j)* can be explained by Henderson’s observation that it is a clitic which requires a phonologically appropriate host, namely a prosodic word. Consider the examples below:

- (37) a. **Man pa k’ayib’al ta** x-Ø-u-tij-o.
 NEG in market NEG CMP-A3-E3-eat-STAT
 ‘S/he didn’t eat it IN THE MARKET.’ (adapted from Henderson, to appear, p.6)
- b.***Man pa ta** k’ayib’al x-Ø-u-tij-o.
 NEG in NEG market CMP-A3-E3-eat-STAT
 ‘(intended reading) S/he didn’t eat it IN THE MARKET.’
- (38) **Man aree ta ri a Raul** x-Ø-el-ik.
 NEG FOC NEG the male Raul CMP-A3-leave-STAT
 ‘RAUL didn’t leave.’ (adapted from Henderson, to appear, p.6)

- (39) **Man ruk' ta ikaj** x-Ø-u-ch'ay-b'e-j.
 NEG E3-with NEG axe CMP-A3-E3-cut-INSTR-STAT
 'S/he didn't cut it WITH THE AXE'. (adapted from Henderson, to appear, p.6)

Given the requirement that *ta(j)* has to attach to a prosodic word, in (37a), it cannot attach to *pa* 'in' as the latter is a light syllable and hence not heavy enough to host *ta(j)*. In (38) and (39), on the other hand, *ta(j)* can attach to *aree* 'FOC' and *r-uk'* 'E3-with', respectively, as both constitute heavy syllables. Similar to these cases, in (27)-(36) we observe that what *ta(j)* attaches to is the first prosodic word of the pre-predicate argument in each case. Henderson, therefore, claims that in these cases *ta(j)* attaches to the right of the first prosodic word in the domain that negation operates over, which for Henderson is the pre-predicate argument in a focus sentence. As the reader may recall, this is the same claim for the distribution of *ta(j)* in simple declarative sentences modulo the domain of negation. I now revise the earlier generalization by adding this observation.

(40) DISTRIBUTION OF *man...taj* (2nd version)

- In a negated simple declarative sentence, *ta(j)* attaches to the right of the first prosodic word of the predicate, which the optional particle *man* can precede.
- In a negated focus sentence, *ta(j)* attaches to the right of the first prosodic word of the pre-predicate constituent, which the optional particle *man* can precede.

However, contra Henderson, there are cases of negated focus sentences where *ta(j)* does not attach to the first prosodic word of the pre-predicate constituent. By way of example, consider the data below:

(41) *Context: Where is the dog? On the chair?*

- a. *P-u-wi' ta ri tem. Ch-u-xe' ri tem k'o wi.*
 PREP-E3-top NEG the chair PREP-E3-base the chair exist PART
 'It is not ON the chair. It is UNDER the chair.
- b. *P-u-wi' ri tem taj. Ch-u-xe' ri mexa k'o wi.*
 PREP-E3-top the chair NEG PREP-E3-base the chair exist PART
 'It is not ON THE CHAIR. It is UNDER THE TABLE.
- c. *P-u-wi' ri tem taj. P-u-wi' ri mexa k'o wi.*
 PREP-E3-top the chair NEG PREP-E3-top the table exist PART
 'It is not on THE CHAIR. It is on THE TABLE.

In (41b-c) the clitic *ta(j)* attaches to *ri tem* 'the chair' and not to the first prosodic word of the pre-predicate constituent. However, *p-u-wi'* 'PREP-E3-top' is heavy enough to host *ta(j)* as (41a) shows. Note the difference between these cases and the example below where it is *not* possible for *ta(j)* to attach to *pa* 'in' as the latter is a light syllable, and hence not a proper host for *ta(j)*:

(42) *Context: Where is the dog? In the house?*

a. *Pa jaa ta k'o wi. Chi-r-ij jaa k'o wi.*
 in house NEG exist PART PREP-E3-behind house exist PART
 'It is not IN the house. It is BEHIND the house.'

b. **Pa ta jaa k'o wi. Chi-r-ij jaa k'o wi.*
 in NEG house exist PART PREP-E3-behind house exist PART
 (Intended reading) 'It is not IN the house. It is BEHIND the house.'

The reason why *ta(j)* cannot attach to *pa* 'in' is not only because the latter will be prosodified with its argument, i.e. prosodically incorporate into its argument, as it usually happens for functional heads in K'iche' (Henderson, to appear, p.23). As the examples below illustrate, even when its argument is absent, *ta(j)* cannot attach to *pa* 'in'. Recall that the locus of stress in K'iche' is prosodic words. Yet, *pa* 'in' cannot carry stress and hence cannot be a prosodic word. Compare (43)-(44):

(43) *Context: Where is the dog? On the table?*

P-u-wi' taj. Ch-u-xe' k'o wi.
 PREP-E3-top NEG PREP-E3-base exist PART
 'It is not ON (the table). It is UNDER (the table).'

(44) *Context: Where is the dog? In the house?*

**Pa taj. Chi-r-ij k'o wi.*
 in NEG PREP-E3-behind exist PART
 (Intended reading) 'It is not IN (the house). It is BEHIND (the house).'

In the acceptable (41b-c) above, on the other hand, there *are* heavy enough hosts preceding the words that *ta(j)* actually attaches to and yet it is possible for *ta(j)* to not attach to them. Furthermore, when there is more than one appropriate host in the pre-predicate constituent, the attachment of *ta(j)* is in fact indeterminate. For instance, (41a) and (41b) are three-way ambiguous in that both can be used when the focus is on the preposition *p-u-wi'* 'PREP-E3-top', on the noun phrase *ri tem* 'the chair', or on the entire prepositional phrase *p-u-wi' ri tem* 'PREP-E3-top the chair'. In other words, when *ta(j)* attaches to *p-u-wi'* 'PREP-E3-top', the interpretations in (45) are also possible alongside (41a):

(45) *Context: Where is the dog? On the chair?*

a. *P-u-wi' ta ri tem. P-u-wi' ri mexa k'o wi.*
 PREP-E3-top NEG the chair PREP-E3-top the chair exist PART
 'It is not on THE CHAIR. It is on THE TABLE.'

b. *P-u-wi' ta ri tem. Ch-u-xe' ri mexa k'o wi.*
 PREP-E3-top NEG the chair PREP-E3-base the chair exist PART
 'It is not ON THE CHAIR. It is UNDER THE TABLE.'

Similarly, when *ta(j)* attaches to *ri tem* ‘the chair’, (46) is a possible interpretation alongside (41b) and (41c):

(46) *Context: Where is the dog? On the chair?*

P-u-wi’ ri tem taj. Ch-u-xe’ ri tem k’o wi.
PREP-E3-top the chair NEG PREP-E3-base the chair exist PART
‘It is not ON the chair. It is UNDER the chair.’

In sum, it is possible for *ta(j)* to not attach to the first prosodic word of the pre-predicate constituent, contra Henderson’s claim. Moreover, *ta(j)* can attach to a prosodic word of this constituent irrespective of context. Therefore, I will analyze the attachment of *ta(j)* as essentially indeterminate and adopt the following generalization about the distribution of the negation particles *man...ta(j)*:

(47) DISTRIBUTION OF *man...taj* (final version)

- In a negated simple declarative sentence, *ta(j)* attaches to the right of the first prosodic word of the predicate, which the optional particle *man* can precede.
- In a negated focus sentence, *ta(j)* non-deterministically attaches to the right of a prosodic word in the pre-predicate constituent, which the optional particle *man* can precede.

This revised generalization concludes my discussion about the distribution of *man...ta(j)*. In the next section, I am going to talk about the second observation that I am building my proposal on, namely the interpretation of negated focus sentences.

4.2 Interpretation of negated focus sentences

There seems to be some truth to the common intuition in the literature about negated focus sentences, namely that the focused constituent is “negated” in some sense. In this section, I intend to clarify what this sense is. Rather than claiming that constituents are “negated”, however, I will show that this intuition can be tied to how focus behaves when embedded under negation, which, in turn, depends on the definition of focus I have adopted earlier. We start with a long-standing observation about how focus and negation interact. Jackendoff (1972, p.254), for instance, notes that “often negation does not seem to apply to an entire sentence, but only to part of it”. To illustrate, consider the following examples:

(48) Michael didn’t eat TORTILLAS yesterday.

(49) Michael didn’t eat tortillas YESTERDAY.

In (48), the speaker denies that Michael ate tortillas yesterday without denying that he ate something yesterday, whereas in (49) she denies that the time Michael ate tortillas was yesterday, without denying that he ate tortillas some other time. This is why Jackendoff (1972,

p.255) says that negation associates with focus as its meaning depends on the focal structure of the utterance, namely what the answer to the QUD is. As Kadmon (2001, p.259) points out, this is not a truth-conditional effect, however, given that both (48) and (49) assert the same proposition. What differs is the QUD they presuppose, i.e. the alternatives that they evoke, which is reflected in the placement of the prosodic prominence in each case. In (48), the alternatives range over things that Micheal could have eaten yesterday whereas in (49) they range over times that Michael could have eaten tortillas.

Recall that, in section 3, I adopted the assumption that focus is an answer to the Question Under Discussion (QUD) (Roberts, 1996), the current discourse topic when the focus sentence is uttered. What this definition requires is question-answer congruence in that in a focus construction like (50) the *focused* part correlates with the *wh*-word, and the *non-focused* part is congruent to the QUD:

(50) *Context: Who ate tortillas?*
MICHAEL ate tortillas.

A long-standing observation about the interaction between focus and negation is that when, say, (50) is negated as in (51), negation affects what is being asserted. In (50), the assertion is that among the alternatives that the focus evokes, it is Michael who ate tortillas. When the sentence is negated, the assertion is reversed in that now Michael is not in the set of tortilla-eaters. Yet, what is presupposed, the QUD, is not affected by negation as it is a presupposition (Jackendoff, 1972; Kratzer, 1989; Kadmon, 2001; Beaver & Clark, 2008).

(51) MICHAEL didn't eat tortillas.

I claim that the common intuition that the focused constituents are “negated” in K’iche’ is precisely because of this interaction between focus and negation. Yet, the present analysis does not posit an operation that fronts constituents and “negates” them, which, as we have seen, is problematic both descriptively and theoretically. Rather, it utilizes the definition of focus as an answer to the QUD and the observations about how focus behaves when embedded under negation. Combining the generalization in (47) with the observations about how negation affects focus, thus, enables us to unify the different-looking behavior of the negation particles in K’iche’, where negation, regardless of the type of the sentence, always yields propositional negation. In the particular case of focus, the negation operator acts differently on what is presupposed and what is asserted.

5 Conclusion

This paper discussed how negation is encoded in K’iche’. I reviewed descriptive and theoretical problems with the traditional analyses which claim (i) that the negation particles *man...ta(j)* occur around the predicate in a basic declarative sentence and (ii) that, in a negated focus sentence, it is the focused constituent that is “negated”. Following Henderson (to appear), I developed an alternative account where the particle *ta(j)* is analyzed as

a clitic which attaches to a prosodically appropriate host. In particular, I argued that it attaches to the first prosodic word of the predicate in negated basic declarative sentences. As for negated focus sentences, I claimed that *ta(j)* attaches to a prosodic word of the pre-predicate constituent, but, contra Henderson, not necessarily to the first prosodic word. I presented evidence that in these cases *ta(j)* can attach to other prosodic words in the pre-predicate foci and that this attachment is in fact indeterminate. Lastly, I argued that the common intuition about the focused constituent being “negated” is due to the pragmatic interaction between focus and negation, namely that when a focus construction is negated what is asserted is targeted by negation, whereas what is presupposed, the existence of a Question Under Discussion (QUD) (Roberts, 1996), survives as an implication (Jackendoff, 1972; Kratzer, 1989). I argued that combining the facts about the distribution of *man...ta(j)* and the pragmatics of focus and negation gives us a unified account of negation in K’iche’ whereby we can predict the variable surface distribution of *man...ta(j)* which invariably yields propositional negation.

The generalization I have formulated about the distribution of *man...taj* suggests that negation in simple declaratives and negation in focus sentences must be handled differently since the distribution of the particles in these cases is different. Alongside the language-internal motivations for such an analysis, some support for having different lexical entries for these two cases comes from other members of the Mayan family. For example, Kockelman (2003) notes that Q’eqchi’ has two negators which are non-homophonous: (i) *ink’a*’ for negation in simple declaratives and (ii) *moko...ta* for negation in negated focus sentences. Similarly, according to England (1983), Mam has a number of different negative particles which are in complementary distribution. In particular, the marker *miti*’, which is used to negate declaratives with verbal predicates cannot be used to negate focus sentences and declaratives formed with stative predicates which require the particle *miyaa*’. If my analysis is on the right track, then it would mean that K’iche’ also makes a similar distinction despite using homophonous negators in each case.

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Notes

¹This particle has been traditionally glossed as an irrealis particle in K’iche’ and it does have an irrealis meaning when it is used in counterfactual constructions (Larsen, 1988). However, as Larsen points out, the negative particle *man* is optional in many dialects of modern K’iche’. In the speech of all but one of the consultants that I worked with, *man* is almost always omitted and only the so-called irrealis particle *ta(j)* is used. Since it is also possible to use *ta(j)* as the sole negator, I follow Pye (2001) and treat *ta(j)* as a negation particle and gloss it as NEG.

²In the orthography, all symbols have their standard phonetic value except the following: ' = glottal stop, C' = glottalized consonant, VV = long vowel, ch = [č], tz = [č'], x = [š], and j = [x] or [x̣]. The following abbreviations are used in the morphological glosses of the examples: A1(p), A2(p), A3(p) = absolutive first, second, third person singular (plural) affix; E1(p), E2(p), E3(p) = ergative first, second, third person singular (plural) affix; AG = agent focus; CMP = completive; DET = determiner; FOC = focus particle; INCMP = incomplete; INSTR = instrumental; NEG = negative particle; PREP = preposition; PART = particle; STAT = status suffix. Unless otherwise stated, all the data in this paper is from original fieldwork in Santa María Tzejá, Ixcán, El Quiché, Guatemala and Columbus, Ohio, USA.

³I am using the standard terminology for ergative languages but I do not intend to imply that all A arguments are agents and/or all O arguments are patients.

⁴It has been reported that the negative particle exhibits dialectal variation. In some dialects it is *man*, in some dialects it is *ma* and yet in some it is *na* (Larsen 1988; Henderson, to appear).

⁵Henderson (to appear) claims that, just as the status suffixes *-ik* and *-o* which attach to verbs, the phrase-final form *taj* appears at the end of Intonational Phrases. In the speech of my consultants, the non-phrase-final form *ta* is always realized as [t] cliticized to the preceding word.

⁶I leave it for future research to determine whether there are any differences between these two possibilities.

⁷This marker comes in two forms: *-(V)w* for root transitive verbs, and *-n* for derived transitive verbs (Trechsel, 1993).

⁸According to Davies & Sam-Colop (1990), the only known exception to this diversity is the 'demoted' agent of a passivized sentence.

⁹In (34), *ta(j)* cannot attach to *jun* 'a' because in speech this determiner does not bear stress and its coda consonant is usually omitted, i.e. it will not count as a prosodic word.

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